



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/532,016

04/20/2005

Kari Korpiola

HEI2-PT011

8812

3624 7590 04/29/2008

VOLPE AND KOENIG, P.C.
UNITED PLAZA, SUITE 1600
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

WIECZOREK, MICHAEL P

ART UNIT

PAPER NUMBER

4172

MAIL DATE

DELIVERY MODE

04/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,016	Applicant(s) KORPIOLA, KARI	
	Examiner Michael Wieczorek	Art Unit 4172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/20/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/20/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/532016, filed on 4/20/2005.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claims 1 and 6, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
5. The term "longitudinal direction" in claims 1 and 6 is a relative term which renders the claim indefinite. The term "longitudinal direction" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Claims 1 and 6 are rendered indefinite because it is not clear what can be considered the "longitudinal direction" of the blade substrate. The "longitudinal direction" of the blade substrate can change depending on how one

holds the blade thus making it unclear as to which direction would be perpendicular to the “longitudinal direction” of the blade.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 5-8, and 10 are rejected under 35 U.S.C. 102(b) as being taught by Wallsten (U.S. Patent # 4,600,599). Wallsten teaches a method and apparatus for coating metallic strips.

The method taught by Wallsten includes a pretreatment step, which consists of roughening the surface of the strip that is going to be coated. Furthermore, the apparatus taught in Wallsten comprises a device that conducts this pretreatment. The pretreatment device taught in Wallsten can be in the form of a rotating grinding wheel. (Column 3 Lines 57-63)

The apparatus taught by Wallsten is designed to provide a coating on a strip of metallic carrier material and comprises multiple reels and rollers with which the carrier material is passed through and wound around during the coating process (Column 3 Lines 30-31 and 45-57, Figure 1).

Furthermore, the apparatus comprises a rotating drum with which the metallic strip is wound around and the drum has a coating area or pitch that is 8 mm (Figure 1, Column 7 Lines 4-8).

Art Unit: 4172

8. Claim 2 is rejected under 35 U.S.C. 102(b) as being taught by Battaglia et al (U.S. Patent # 5,709,907). Battaglia et al teaches a method of coating a cutting tool that has been first pretreated to roughen the surface to be coated to 15 - 125 microinches R_a (Column 3 Lines 51-64). The range of 15 - 125 microinches R_a converts to 0.38 - 3.175 micrometers R_a .

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallsten as applied to claim 1 above, and further in view of Bales et al (U.S. Patent # 5,893,846).

Wallsten teaches a method and apparatus for coating a metallic strip which is pretreated by roughening the surface area of the strip that is going to be coated (see 102 rejection). Furthermore, Wallsten teaches that the coating is applied to the strip by a thermal spraying technique (Column 4 Lines 28-30).

Art Unit: 4172

Wallsten does not specifically teach the use of a High Velocity Oxy Fuel (HVOF) process but it does teach the use of a thermal spraying process, which HVOF is.

Bales et al teaches a method of applying a coating using the HVOF process on a substrate that has had its surface roughed before coating (Column 2 Lines 44-66). The substrates coated in Bales et al are the blades of a scissor used in surgical procedures. This substrate can be classified as a metallic strip.

Since Bales et al teaches that the HVOF process can be used to coat metallic substrates that have had their surfaces roughened it would have been obvious to use HVOF technology in the Wallsten apparatus and method because the HVOF process is a thermal spraying technique and HVOF produces a coating with a very low surface roughness. The low surface roughness of the coating created by the HVOF process would eliminate the need for post-coating grinding of the coated surface as required by Wallsten (Column 7 Lines 32-37).

Conclusion

No claims were allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Wieczorek whose telephone number is (571)270-5341. The examiner can normally be reached on Monday through Friday; 7:30 AM to 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571)272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4172

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MPW/

/Vickie Kim/

Supervisory Patent Examiner, Art Unit 4172